suggest the high oil to surfactant ratio of the present invention, an emulsion that is "obtainable by applying a shear force corresponding to a shear rate of 10,000 s^{-1} or more to a mixture of component (A), component (B) and component (C)", and the improved properties of the emulsions of the present invention.

Tomomasa does not suggest an emulsion containing a weight ratio of 10 or more of the oily component (B) to the surface active agent (A). This document is directed to compositions where the amount of surfactant to oil ranges from 1:0.5 to 1:7, far less than the 1:10 ratio of the present invention, see page 12, last lines. Moreover, page 13, lines 12-14, teaches away from using a larger amount of oil by indicating:

> . . .unless the quantity of the nonionic surfactant in relation to the oil is large, good microemulsion cannot be obtained.

Moreover, there is no suggestion in Tomomasa to apply a shear force corresponding to a shear rate of 10,000 s^{-1} or more to a mixture of component (A), component (B) and component (C). While page 13, line 10, refers to high sheer forces, there is no suggestion to select a shear force corresponding to a shear rate of 10,000 s^{-1} or more. As shown by the comparative Examples in Table 1 on page 17 of the specification (see below), the application of a sheer force less than a shear rate of 10,000 s^{-1} resulted in formation of unstable and cloudy emulsions. On the other hand, use of a shear rate of 10,000 s^{-1} or more produced stable and transparent emulsions, see the Inventive Examples in Table 1 (below).

Table 1:

	Inventive Example						Comparative Example		
	1	2	3	4	5	6	1	2	3
N-Stearoylarginine monosodium	0.5	1.0					0.5	0.4	
N-Myristoyl-N-methyltaurine sodium			0.5	0.5	1.0			0.5	0.5
Stearyltrimethylammonium chloride						0.5			
Cetanol	0.67	0.36	0.30	0.36	0.67	0.67	0.67	0.50	0.30
Stearyl alcohol	0.53	0.24	0.20	0.24	0.53	0.53	0.53	0.40	0.20
Dimethyl polysiloxane (6 mm^2/s)	5.1	10.0			4.0		5.1	4.0	
Squalane			5.0		6.0			6.0	5.0
Isopropyl myristate				5.0		5.0			
Glycerol	3.6	10.0	4.2	4.2	4.2	6.0	3.6	10.0	4.2
Dipropylene glycol	2.0	2.0		2.0	2.0	3.0	2.0	2.0	
Purified water	82.6	74	89.8	87.7	72.9	84.3	82.6	74	89.8
Ethanol	5.0	2.4			8.7		5.0	2.4	
Appearance	transparent						cloudy		
Average particle size (μm)	0.09	0.12	0.07	0.08	0.13	0.06	0.35	1.50	0.60
Light transmittance									
(Just after production)	87.8	83.2	92.2	88.0	80.7	90.1	32.2	10.3	19.3
(After 1 month at -5°C)	87.2	81.2	91.7	85.4	77.7	86.3	*	*	*
(After 1 month at 25°C)	87.5	84.8	90.7	88.1	78.1	89.1	*	*	*
(After 1 month at 40°C)	83.3	80.7	89.9	83.1	76.7	88.0	*	*	*

Accordingly, Tomomasa does not disclose or suggest the present invention, because this document does not suggest a ratio of oily component to surface active agent of 10 or more and teaches away from using high ratios of oil to surfactant, and does not suggest using a sheer rate of 10,000 s^{-1} or more or the improved properties of emulsions obtainable using such a sheer rate.

Kakoki et al does not disclose or suggest the emulsions of the present invention. While Kakoki describe a wide-range of surfactant to oil ratios, including compositions containing "up to 10 parts surfactant per part of oily component" (see Claim 1), there is no suggestion to select compositions within the range of at least 10 parts oily component to 1 part surface active agent. In fact, Kakoki teach away from this range in their examples, which are directed to compositions containing less than 10 parts oily component to 1 part surfactant. Moreover, col. 4, lines 30-38, teaches away from the present invention by describing the problems associated with using low ratios of surfactants to oils. While col. 4, lines 41-43, refers to compositions containing "a level of 10 parts by weight or less, especially 1 part by weight or less, of the surfactant per 1 part by weight of the oily component" there is no suggestion to use 0.1 part by weight of surfactant or less to 1 part by weight of the oily component, i.e. corresponding to the inventive ratio of 10 parts or more oily component (B) per 1 part surface active agent (A). Thus, Kakoki does not suggest the oil to surfactant ratio of the present invention.

Further, Kakoki do not suggest selection of a sheer rate of 10,000 s^{-1} or more or the improved properties of emulsions obtainable using such a sheer rate. While col. 4, line 60-col. 5, line 3, describes various emulsification treatments there is no suggestion that a shear rate of 10,000 s^{-1} or more would emulsify a mixture of 10 parts or more of oily component to 1 part surface active agent and provide stable and transparent emulsification of these

ingredients as shown in the Inventive Examples in Table 1 (reproduced above) and in Table 3 on page 19 of the specification.

Accordingly, the cited prior art does not suggest the compositions of the present invention comprising 10 parts or more of oily component to 1 part of surface-active agent, or emulsification of such compositions using a sheer rate of 10,000 s^{-1} or more, or the improved stability and transparency of such compositions.

CONCLUSION

Favorable consideration and allowance of Claims 1-20 is requested in view of the above amendments and remarks. Early notification to that effect is earnestly solicited.

Respectfully submitted,
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Docket No: **206580US0**
Serial No: **09/842,161**
Amendment Filed: **11/16/01**

IN THE CLAIMS

--1. (Amended) An oil-in-water [type] emulsion [cosmetic] comprising

(A) a hydrophilic surface active agent,

(B) an oily component and

(C) water,

wherein the weight ratio of [the] component (B) is 10 or more based on 1 of the component (A), and

wherein said emulsion is obtainable by applying a shear force corresponding to a shear rate of 10,000 s^{-1} or more to a mixture of component (A), component (B) and component (C).

2. (Amended) The oil-in-water [type] emulsion [cosmetic] according to claim 1[, wherein the cosmetic] that has a light transmittance at 550 nm of 50% or more.

3. (Amended) The oil-in-water [type] emulsion [cosmetic] according to claim 1[, which has an] wherein the average particle size of the particles in the emulsion [particles of] ranges from 0.01 to 0.2 μm.

4. (Amended) The oil-in-water [type] emulsion [cosmetic] according to claim 1,

wherein [the] component (B) comprises a liquid oil component and a solid fatty material, and

the [cosmetic] emulsion has a viscosity [at 25°C of] ranging from 200 to 1,000,000 mPa•s at 25°C.

5. (Amended) The oil-in-water [type] emulsion [cosmetic] according to claim 2, wherein [the] component (B) comprises a liquid oil component and a solid fatty material, and

the [cosmetic] emulsion has a viscosity [at 25°C of] ranging from 200 to 1,000,000 mPa•s at 25°C.

6. (Amended) The oil-in-water type emulsion cosmetic according to claim 1, [which is produced] wherein said emulsion is obtainable by applying a shear force corresponding to [a maximum] a shear rate of [10, 000] 1,000,000 s^{-1} or more to a mixture of the component (A), component (B) and component (C)].

7. (Amended) The oil-in-water [type] emulsion [cosmetic] according to claim 2, [which is produced] wherein said emulsion is obtainable by applying a shear force corresponding to a [maximum] shear rate of [10, 000] 1,000,000 s^{-1} or more to a mixture of the component (A), component (B) and component (C)].

8. (Amended) A liquid cosmetic [which is obtained] comprising [by diluting] the oil-in-water [type] emulsion [cosmetic] according to claim 4 [with] and an aqueous medium.

9. (Amended) A liquid cosmetic [which is obtained by diluting the] comprising the oil-in-water [type] emulsion [cosmetic] according to claim 5 [with] and an aqueous medium.--

Please add new Claims 10-20 as follows:

--10. (New)

11. (New)

12. (New)

13. (New)

14. (New)

15. (New)

16. (New)

17. (New)

18. (New)

19. (New)

20. (New) .--

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